

## CLAIMS

What is claimed is:

- 1 1. A method, comprising:
  - 2 receiving a request for an information object at an anycast network address; and
  - 3 resolving the request to a corresponding unicast address for the information object.
- 1 2. The method of claim 1 further comprising returning the unicast address for the information  
2 object.
- 1 3. The method of claim 1 wherein the request is received at an information object repository  
2 selected without regard as to whether the information object is actually stored at the information  
3 object repository.
- 1 4. The method of claims 3 further comprising instructing the selected information object  
2 repository to obtain a copy of the information object.
- 1 5. The method of claim 3 the information object repository is selected according to specified  
2 performance metrics.
- 1 6. The method of claim 5 wherein the performance metrics comprise one or more of: average  
2 delay from the selected information object repository to a source of the request, average processing  
3 delay at the selected information object repository, reliability of a path from the selected  
4 information object repository, available bandwidth in said path, and loads on the selected  
5 information object repository.

- 1 7. An information object repository configured to resolve a network layer anycast address to a  
2 network layer unicast address in response to a request for an information object at the network  
3 layer anycast address.
- 4 8. The information object repository of claim 7 being further configured to resolve the network  
5 layer anycast address by transmitting a request for the network layer unicast address and awaiting a  
6 response thereto.
- 1 9. The information object repository of claim 8 being further configured to return a failure  
2 message to a source of the request for the information object if the response to the request for the  
3 network layer unicast address is not received within a timeout period.
- 1 10. A network, comprising:  
2 at least one client configured to transmit a request for an information object using a network  
3 layer anycast address; and  
4 an information object repository configured to receive the request for the information  
5 object and to resolve the network layer anycast address into a network layer unicast address.
- 1 11. The network of claim 10 wherein the information object repository is further configured to  
2 resolve the network layer anycast address by transmitting a request for the network layer unicast  
3 address and awaiting a response thereto.
- 1 12. The network of claim 11 wherein the information object repository is further configured to  
2 return a failure message to the client if the response to the request for the network layer unicast  
3 address is not received within a timeout period.
- 4 13. The network of claim 12 wherein the request for the network layer unicast address comprises  
5 a single IP packet that includes the network layer anycast address.

1 14. The network of claim 13 wherein the response to the request for the network layer unicast  
2 address comprises a single IP packet that includes the network layer unicast address.

1 15. The network of claim 14 wherein the response to the request for the network layer unicast  
2 address is returned by a host having the network layer unicast address.

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Patent Application